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EXAMINER	
LACLAIR, DARCY D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Attachment to Advisory Action

1. Applicant's response filed 7/21/2009 has been fully considered but it is not ***fully*** persuasive.

2. Specifically, applicant argues

(A) Claim 1 has been amended to recite "unsaturated groups of diene portions" to correct alleged indefiniteness.

(B) Applicants have previously noted that "[a] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc, 27 S. Ct. 1741* Applicants note that Doki is relied upon for providing all the teachings of the present claims except for the random copolymerization that is required by the present claims, for which Shibata is relied upon, adding only that the second block is randomly copolymerized. Clarifying, Doki teaches that its block copolymer is *not* randomly copolymerized.

Applicants further note that Doki is the publication of a US application that was filed in late 2001 and that Shibata was issued in 1993; presumably if the benefit of using Shibata's randomly copolymerized block in Doki's application, then Doki would have employed a randomly copolymerized block, but this is not the case, as Doki clearly does not teach or suggest the use of any randomly copolymerized block. This supports a point that Applicants have raised previously; that a person of skill in the art would not have been motivated to incorporate Shibata's teachings into Doki; The thrust of Doki is

to impart high vibration dampening ability and low frictional wear characteristics to polyoxymethylene, and this problem is solved by combining *specific* thermoplastic elastomer with the POM; Doki specifically states that preferred is a styrene elastomer comprising a polymer segment (a) comprising vinyl aromatic monomer and a polymer segment (b) comprising isoprene or isoprene-butadiene, however the Office's position in the obviousness rejection is that a person skilled in the art would read Doki and choose to modify this particular styrene elastomer, which is Doki's solution to the problem; Applicant's disagree. Furthermore, Shibata did not provide a solution to any problem Doki sought to solve, such as shaft hole fusion properties and oil resistance.

Applicants conclude by submitting that the Office has lost sight of whether a teaching *should* be combined or modified, and focusing on whether it *could* be combined or modified; Applicant notes that the action states that "*the polymer meets the criteria of Doki's copolymer in that it is a copolymer having an alkenyl aromatic block and a diene-alkenyl aromatic block.*" This misses the mark; the question at issue is whether one of ordinary skill in the art *would have or should have* used Shibata's copolymer in Doki's teaching. Shibata teaches the copolymer can be used in polyoxymethylene and is useful in automotive or electronic moldings, and provides good low temperature impact resistance, paintability, and flexibility; these are reasons for employing Shibata in *a* composition, these fall short of reasons for employing Shibata in Doki's teachings.

3. **With respect to argument (A),** applicant's arguments have been considered and the rejection of Claim 1 under 35 USC 112, Second paragraph been withdrawn ***in light of applicant's amendment.*** Support for the amendment in the original language of Claim 1, reciting a block copolymer having diene units is acknowledged.

With respect to argument (B), the examiner first notes that while Applicant asserts that Doki teaches that the block copolymer is *not* randomly copolymerized, this is not accurate. Rather, Doki simply teaches a copolymer of a styrene monomer and a diene monomer copolymerized with a styrene monomer, with at least two polymer segments (or blocks). (See par [0032]-[0034]) Nowhere does Doki teach that the second block is *not* randomly copolymerized, rather Doki is silent on this point. The copolymer of Shibata falls within the criteria for the (b) segments set forth by Doki, namely a polymer segment comprising isoprene or isoprene-butadiene (diene), but in no way requires that the polymer segment set forth by Doki is radically changed.

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977). While the copolymer set forth by Doki is the solution to Doki's problem, nothing in either Doki or Shibata, or the arguments set forth by applicant demonstrate that using the teachings of Shibata in Doki to modify the copolymer set forth by Doki would conflict with the benefits of the copolymer set forth by Doki. Rather further improvements are realized by incorporating the teachings of Shibata, which give clear benefits for

incorporating the inventive copolymer in polyoxymethylene to impart impact resistance, paintability, and flexibility. (See col 1 line 43-50) Furthermore, although Doki does not expressly look to solve the problems which Shibata teaches, Shibata teaches *within the confines of the disclosure* that these problems are solved by the use of this copolymer. Therefore the motivation is found within the references cited. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to applicant's argument with regard to the statement in the Office Action mailed 5/21/2009, that "*the polymer meets the criteria of Doki's copolymer in that it is a copolymer having an alkenyl aromatic block and a diene-alkenyl aromatic block,*" the examiner notes that while this is not a motivation to combine these references, it is an important fact to note that this polymer of Shibata falls within the criteria set forth by Doki, and therefore it is not in conflict with the teachings of Doki. The motivation for this combination comes from Shibata. As applicant states, the copolymer of Shibata to be used in polyoxymethylene, which is taught by Doki, "provides good low temperature impact resistance, paintability, and flexibility; these are reasons for employing Shibata in *a* composition" (see Remarks of 7/21/2009, page 10 paragraph 3) The composition of Doki is a polyoxymethylene and as stated above, uses a copolymer having similar criteria. It is not clear how the copolymer of Shibata taught to provide benefits to a

polyoxymethylene composition, could be useful in *a* composition, but not appropriate in the polyoxymethylene composition of Doki, specifically. It is the Examiner's position that the polyoxymethylene of Doki, employing a copolymer having the same basic structural units as those taught by Shibata, would be an obvious candidate for further improvements, such as in low temperature impact resistance, paintability, and flexibility, by employing the teachings of Shibata.

/D. D. L./

Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796